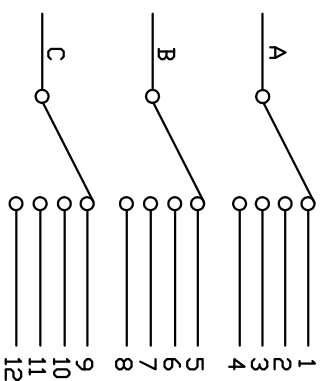
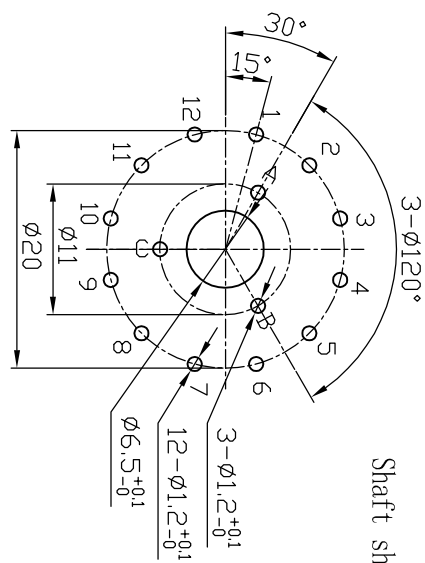
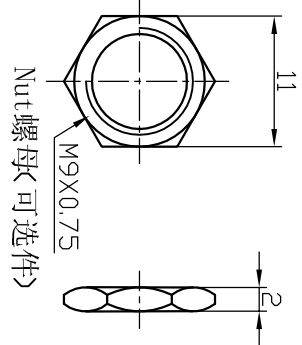
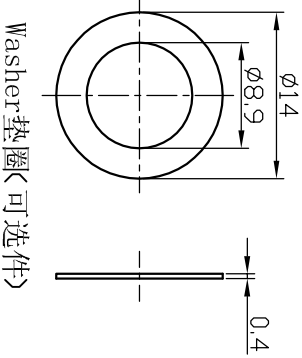
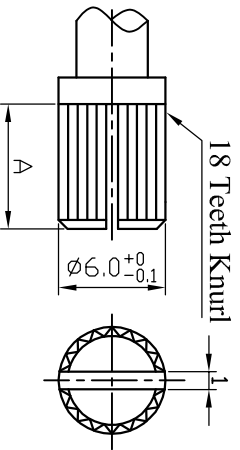


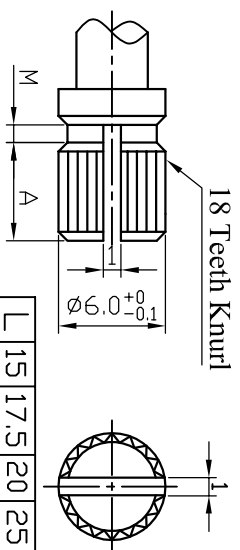
Shaft shown in full C.C.W position
(逆时针方位)



KA Shaft Style



KQ Shaft Style



L	15	17.5	20	25	30
A	5	8.5	9	12	12

L	15	17.5	20	25	30
M	1	1.5	1.5	2	2
A	5	8.5	9	12	12

Angle	±2°
30~	±0.5
10~30	±0.3
~10	±0.15

CUSTOMER COPY TITLE: 深圳明佳创新电子有限公司
名称: 旋转开关

TYPE NO. S2501XC1304H1-□XX□B-000

DRAWING NO. MJ-S2501-0010

工程变更通知单 ECN(DCN) NO.	PA	2016/3/14	NEW	说明 DESCRIPTION	变更 CHANGE	承认 APPRO.	GENERAL TOLERANCE UNLESS OTHERWISE NOTED	设计 DESIGN	校阅 CHECK	审核 CHECK	承认 APPRO.	SCALE	UNIT	mm	A4	A	状态码
REV	版次	日期 DATE	说明 DESCRIPTION	变更 CHANGE	承认 APPRO.	GENERAL TOLERANCE UNLESS OTHERWISE NOTED	设计 DESIGN	校阅 CHECK	审核 CHECK	承认 APPRO.	SCALE	UNIT	mm	A4	A	状态码	

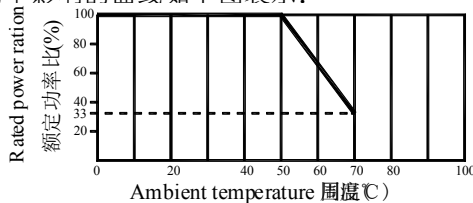
S2501 SWITCH SPECIFICATION

S2501 开关规格书

1、General 一般事项

<p>1.01 Scope The specification applies to model S2501 type</p> <p>1.02 Operating temperature range: 40°C ±2°C</p> <p>1.03 Storage temperature range: -40°C ~70°C</p> <p>1.04 Test conditions Standard atmospheric conditions: Unless otherwise specified, the standard range of atmospheric conditions for making measurements and test is as follows: Ambient temperature:15~35°C Relative humidity:25~85% Air pressure:86kpa to 106kpa. If there is any doubt about the results,measurements shall be made within the following limit: (Ambient temperature:20±1°C Relative numidity:63~67% Air pressure:86kpa to 106kpa).</p>	<p>适用范围 此规格书适用于S2501机型, 使用温度范围: 40°C±2°C 保存温度范围: -40°C~70°C 试验状态 标准状态: 无特别规定之实验及测定以温度: 15~35°C, 相对湿度: 25~85%, 气压: 86~106kap之标准状态测定。 发生判定疑问或另有特别要求则以 基准状态(温度: 20±1°C, 相对湿度: 63~67%, 气压: 86~106kap) 为标准测定。</p>
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2 ELECTRICAL CHARACTERISTICS 电气特性

Item 项目	Conditions 条件	Specifications 规格
2.01 Nominal total resistance and tolerance 公称全阻抗值	The resistance between terminals 1 and 3 shall be measured 端子1-3间阻值测定。	___KΩ □±20% □±10% □±5%
2.02 Resistance law 阻抗变化特性	Measurement shall be made by the resistance law method. For other procedures(refer JISC5261 standard) 用电压法测试, 参照JISC5261标准。	___Taper线性 Refer to the attached 参见附页
2.03 Power rating 额定功率	Power rating is based on continue full load operation at the maximum voltage between terminals 1 and 3 . Power rating vs.ambient temperature shall be denoted on the following graph. 端子1-3间连续负载后的最大功率。 环境温度对功率影响的曲线如下图所示: 	0.15W(50°C)
Contact resistance 接触阻抗	Shall be measured at 1KHz±200KHz max: 20mV(Max 50mA ,Max 20mV) or 5VDC,1A by a voltage drop method 电压下降法测定	50mΩ Max
2.04 Rated voltage 额定电压	Rated voltage 额定电压: $E = \sqrt{PR}$	Maximum operating voltage 最高使用电压 50V AC 250V DC
	Power rating P: 额定功率 (W) When the rated voltage exceeds the maximum operating voltage. the maximum operating voltage shall be the rated voltage . 额定电压大于最高使用电压时,最高使用电压作为额定电压.	Nominal total resistance R: 公称全阻抗值

S2501 SWITCH SPECIFICATION

S2501 开关规格书

2.05 Residual	Contact brush stop at the end of the (A).Resistance Between terminals	R≤10KΩ ___Ω
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resistance 残留电阻	1 and 2, Terminals 2 and 3 shall be measured. A: Angle of effective rotation 接触刷停留在(A)终端位置, 在端子1-2间, 端子2-3间测定之电	$10K\Omega < R < 500K\Omega$ _____ Ω $R \geq 500K\Omega$ 0.1%max. of total resistance
2.06 Rotational noise 转动噪音	Apply DC 20V between terminals 1-3 to measure the noise voltage (rated voltage $\leq 20V$ apply by rated voltage). 在端子1-3间加直流电压20V(额定电压 $\leq 20V$,则以额定电压值测试)后,测定的杂音电压. Shaft rotation : 1rotation /3sec 轴转速:1回转/3秒	Less than 100mVp-p 100mVp-p 以下
2.07、Insulation resistance 绝缘阻抗	device of 500V DC between all the terminals and between the terminals frame for 1 minute \pm 5 seconds 以 500V DC 之电压加于端子相互间及端子与外壳间 1分 \pm 5秒测试之	100M Ω or more 100M Ω 以上
2.08、Dielectric strength 耐电压	Trip current:2mA Measuring frequency : 50~60Hz ;500V AC for 1 \pm 5 min 以 500V AC (50~60Hz 2mA)之电压加于端子相互间及端子与外壳间 1 \pm 5秒测试之	Electrical characteristics shall be satisfied with specification 电气性能符合规定要求
2.09、Gang error 同步误差	The voltage of 2 V r.m.s to 15V r.m.s .Shall be applied between terminals 1 to 3 and between terminals ①to③by measuring frequency at 1KHz. The output voltage shall be measured between terminals 1 and 2 and between terminal①to ②(for the 15C and 25C taper. The measurement shall be made between terminals 2 and 3 and between terminals ② and ③)it should be the same standard with the first measuring result. If there is not any doubt about the results this DC. Voltage shall be used as the test volgate 在端子1-3间, ①-③间, 输入频率1KHz, 电压2V-15v的正弦波实效值, 测量端子1-2间, 端子①-②间的输出电压(适用于15C和25C线型, 端子2-3间, ②-③间也应测量输出电压)结合第一次的测量结果, 应为同一标准, 如对测量结果没有质疑, 则将此电压作为测试电压值。 input impedance of the voltmeter 10M Ω or more.	<input type="checkbox"/> 双联Dual: $\pm 3.0dB$ at -40~0dB 注: 四联之间要求同步 <input type="checkbox"/> 单联Single: 无

3 MECHANICAL CHARACTERISTICS机械特性

Operating force 作動力	使用温度范围 Operating temperature range -10~+70 $^{\circ}$ C 储存温度范围 Storage temperature range -40~+85 $^{\circ}$ C	1.0 \pm 0.5kgf-cm
Manipulation strength 操作强度	沿操作部之动作方向(止动侧)加静负荷1kgf 1分钟	不能有显著的松动,弯曲及机械异常现象发生
Terminal strength 端子強度	端子前端任一方向加 1000gf 之静负荷一分钟(每支端子限制一次)	不能有端子脱落,破坏及之现象,端子可以弯曲且试验后需通各电气性能
Shaft wobble 轴晃动	适用于静止状态下, 于操作处顶端施压100gf-cm	小于 1 mm
Shaft stop strength 轴回转止动强度	N/A	4kgf-cm 以上
Fixed shaft strength 轴套固定强度	N/A	8 kgf- cm 以上

4 ENDURANCE CHARACTERISTICS耐久性能

4.01、Solder ability 焊锡性	The terminals shall be stored at a temperature of 40 $^{\circ}$ C with relative humidity of 90~95%.and measured in 168h.温度40 $^{\circ}$ C, 湿度90~95%RH, 168小时测定。 Solder flux:Flux of 0.82 \pm 0.01 specific weight 焊剂: 比重0.82以上 The terminals shall be immersed into solder bath at 260 \pm 5 $^{\circ}$ C for 3 \pm 0.5s . 端子在260 \pm 5 $^{\circ}$ C温度的焊锡槽内浸锡3 \pm 0.5秒.	A new uniform coating of solder shall cover 75% minimum of the surface being immersed. 浸渍面须有75%以上焊锡附着.
4.02、Resistance to soldering heat 焊锡耐热性	Soldering method手焊条件: (60W) Bit temperature 温度: 300 \pm 5 $^{\circ}$ C Application time of soldering 时间: 3 \pm 1秒	Change in total resistance is relative to the value before test : $\pm 5\%$ Without visual deformation or terminal loosening,Electrical characteristics shall be satisfied with specification. 总阻变化值: $\pm 5\%$ 外观无变形,端子无松动. 电气性能满足规定要求.
4.03 Resistance to heat 耐热性	The potentiometer shall be stored at a temperature of 70 $\pm 2^{\circ}$ C for 240 ± 8 h in a thermostatic chamber.Then the potentiometer shall be measured after maintaining at standard atmospheric conditions for 1h,	Change in total resistance is relative to the value before test : +5-30 %

	in order to remove surface moisture . 温度70±2°C恒温槽中240±8小时放置后置于常温常湿1小时除去水滴后测定。	总阻变化值：初期值+5-30 %		
4.04、Resistance to cold 耐寒性	The potentiometer shall be stored at a temperature of -40±2°C for 96±4h in a thermostatic chamber.Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed. And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h . 温度-40±2°C恒温槽中96±4小时放置后，置于常温常湿1小时除去水滴后，1小时内测定。	Change in total resistance is relative to the value before test : ±20% 总阻变化值：初期值的±20%		
4.05、Damp heat 耐湿性	The potentiometer shall be stored at a temperature of 40±2°C, with relative humidity of 90% to 95% for 96±4h in a thermostatic chamber. Then the potentiometer shall be taken out of the chamber and its surface moisture shall be removed.and measure the potentiometer which shall be subjected to standard atmospheric conditions for 1h. 温度40±2°C,湿度90-95%,恒温恒湿槽中放置96±4小时后,置于常温常湿1小时除去水滴后,1小时内测定。	Change in total resistance is relative to the value before test总阻变化值:初期值的+35-5% Insulation resistance:20MΩ DC 250V 绝缘阻抗: 20MΩ DC 250V Noise : 150mV p-p less than 转动噪音: 150mV p-p 以下		
4.06、Change of temperature 温度循环试验	The potentiometer shall be subjected to 5 successive change of temperature cycles,each as shown in table below. surface moisture shall be removed. .And measure the potentiometer which shall be subjected to standard atmospheric conditions for 1 hour . 以下条件温度连续5个周期的试验后,置于常温常湿1小时除去水滴后,1小时内测定。	Change in total resistance is relative to the value before test:±30% 总阻变化值：初期值的±30% Withstand voltage:AC 300V 1minute 绝缘阻抗: AC 300V Insulation resistance:20MΩ or more DC 250V 1minute 耐电压:20MΩ or more DC 250V 1minute Dielectric strength :with out damage to parts arcing or breakdown etc. 耐电压:无损伤,变形,绝缘破坏等情形.		
	1		Temperature 温度 -10±3°C	Duration放置时间 30 min (分)
	2		standard atmospheric conditions 常温	10 to 15 min(分)
	3		70±2°C	30 min (分)
4	standard atmospheric conditions 常温	10 to 15 min(分)		
4.10、Endurance 耐久性	The moving contact, without electrical load, shall be rotated from one end stop to the other and returned to its original position exceeds 90% of effective angle。 This procedure constitutes 1 cycle. And the moving contact shall be subjected to 600 cycles per hour. (5000 to 8000 continuous cycles for 24h).min 15000 cycles. 轴以600周/小时(来回算1周)的速度旋转(24小时只能连续5000~8000周),有效旋转角度超过90%,min 15000周.	Change in total resistance is relative to the value before test : ±20% 总阻变化值：规格值的±20% Rotational noise: 150mV p-p less than 转动噪音: 150mV p-p 以下 Residual resistance: Two times of original 残留：初始规格值的两倍		
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